IN THE CLAIMS

Please amend the claims as follows:

Claims 1-12 (Canceled).

Claim 13 (Currently Amended): A method of filtering an optical signal, comprising steps of:

coupling an optical signal having a plurality of wavelengths into an optical fiber; and

~~receiving a filtered optical signal out of said optical fiber; and~~

selectively filtering at least one wavelength out of the plurality of wavelengths by varying a load applied to a compliant support block having at least a first portion of said optical fiber embedded therein,

wherein said first portion of said optical fiber ~~embedded in said compliant support block~~ has a periodic variation in refractive index along at least a second portion thereof to form a fiber Bragg grating in said optical fiber.

Claim 14 (Original): A method of filtering an optical signal according to claim 13, wherein said varying said load applied to said compliant support block changes a transmission characteristic of said fiber Bragg grating.

Claim 15 (Original): A method of filtering an optical signal according to claim 13, wherein said compliant support block has a substantially cylindrical shape, and wherein said varying said load applied to said compliant support block comprises changing a compressional force applied between opposing ends of said compliant support block.

Claim 16 (Original): A method of filtering an optical signal according to claim 13, wherein said filtered optical signal is reflected from said fiber Bragg grating.

Claim 17 (Original): A method of filtering an optical signal according to claim 13, wherein said filtered optical signal is transmitted through said fiber Bragg grating.

Claims 18-23 (Cancelled).

Claim 24 (New): A method of filtering an optical signal according to claim 13, wherein said step of varying a load causes deformation of said compliant support block, such that a radial component of said compliant support block increases and decreases with respective increases and decreases of said load.

Claim 25 (New): A method of filtering an optical signal according to claim 13, wherein said step of varying a load causes an axial strain and a compressive strain on said optical fiber.

Claim 26 (New): A method of filtering an optical signal according to claim 25, wherein said step of varying a load includes pressing a rigid surface against said complaint support block, and wherein an amount of the axial strain is dependent upon an orientation of said optical fiber with respect to said rigid surface.

Claim 27 (New): A method of filtering an optical signal according to claim 13, wherein said step of varying a load includes displacing a rigid surface contacting said

compliant support block, and wherein a relationship between a length of said at least one wavelength and a length of said displacement is substantially linear.

Claim 28 (New): A method of filtering an optical signal, comprising steps of:

coupling an optical signal having a plurality of wavelengths into an optical fiber;

selectively reflecting at least a first wavelength out of said plurality of wavelengths by varying a load applied to a first compliant support block having at least a first portion of said optical fiber embedded therein, said first portion having a periodic variation in refractive index along at least a portion thereof to form a first fiber Bragg grating in said optical fiber;

passing other wavelengths through the first fiber Bragg grating to a second portion of said optical fiber embedded in a second compliant support block, said second portion having a periodic variation in refractive index along at least a portion thereof to form a second fiber Bragg grating in said optical fiber;

selectively reflecting at least a second wavelength out of said other wavelengths by varying a load applied to said second compliant support block; and

forming a second optical signal of said first and second wavelengths.

Claim 29 (New): The method of filtering an optical signal according to Claim 28, wherein said second optical signal is formed at a third portion of said optical fiber located before said first and second fiber Bragg gratings in a transmitting direction of said other wavelengths passed through said first fiber Bragg grating.

Claim 30 (New): An apparatus for filtering an optical signal, comprising:

a coupler configured to couple an optical signal having a plurality of wavelengths into an optical fiber; and

means for selectively filtering at least one wavelength out of the plurality of wavelengths by varying a load applied to a compliant support block having at least a first portion of said optical fiber embedded therein,

wherein said first portion of said optical fiber has a periodic variation in refractive index along at least a second portion thereof to form a fiber Bragg grating in said optical fiber.

Claim 31 (New): An apparatus for filtering an optical signal, comprising steps of:

a coupler configured to couple an optical signal having a plurality of wavelengths into an optical fiber;

means for

selectively reflecting at least a first wavelength out of said plurality of wavelengths by varying a load applied to a first compliant support block having at least a first portion of said optical fiber embedded therein, said first portion having a periodic variation in refractive index along at least a portion thereof to form a first fiber Bragg grating in said optical fiber, and

passing other wavelengths through the first fiber Bragg grating to a second portion of said optical fiber embedded in a second compliant support block, said second portion having a periodic variation in refractive index along at least a portion thereof to form a second fiber Bragg grating in said optical fiber;

means for selectively reflecting at least a second wavelength out of said other wavelengths by varying a load applied to said second compliant support block; and

a circulator configured to form a second optical signal of said first and second wavelengths and arranged at a third portion of said optical fiber located before said first and

second fiber Bragg gratings in a transmitting direction of said other wavelengths passed through said first fiber Bragg grating.